

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

In the Office Action, the Examiner rejects claims 26 and 42-43 under 35 U.S.C. §103(a) as being allegedly unpatentable over U.S. Patent No. 5,852,485 to Shimada et al. (hereinafter “Shimada”) in view of U.S. Patent No. 6,181,402 to Shim et al. (hereinafter “Shim”), U.S. Patent No. 6,023,317 to Xu et al. (hereinafter “Xu”), and U.S. Patent No. 5,721,597 to Kakinuma et al. (hereinafter “Kakinuma”).

In response, independent claim 26 has been amended to clarify its distinguishing features. Further, new claims 45 and 46 have been added, which were elements of independent claim 26 that have been deleted from claim 26 in the present amendment. Support for the amendment and new claims is found throughout the specification; specifically, in Figs. 1A – 1B, and on page 12, line 22 – page 18, line 23. Therefore, Applicants respectfully submit that no new matter has been added by way of the amendment to the claims or the addition of the new claims.

Specifically, independent claim 26 has been amended to recite the step of forming a gate insulating film. The Examiner alleges that Shimada teaches the step of forming a gate insulating film; however, Shimada only teaches forming a protection layer, which is not the same as the gate insulating film claimed in claim 26.

Further, amended independent claim 26 recites forming a protection layer with an upper surface that is flat, on the first substrate, forming a flat color filter layer on the protection layer, and forming an interlayer separation film on the flat color filter layer. Shimada, on the other hand, fails to teach forming a protection layer that has a flat upper surface, and further fails to teach forming a flat color filter layer on the protection layer, and further forming the interlayer separation film on the flat color filter layer, as alleged by the Examiner.

Patterning of a color filter is necessary to produce a color LCD. The patterning of the color filter is performed by exposing light to the color filter. If the thickness of a color filter is not uniform, then only thin portions of the color filter are deleted, while thick portions of the color filter are not deleted completely, whereby the patterning of the color filter becomes insufficient.

In order to avoid insufficiency of the patterning, the present invention, as recited in independent claim 26, recites forming a protection layer with a flat upper surface, and forming a flat color filter layer on the protection layer. The protection film 108 on the substrate 101 absorbs the roughness of the first substrate, and the surface of the protection layer becomes flat. Therefore, the thickness of the color filter formed on the protection film becomes uniform and as a result, the patterning of the color filter on the protection layer becomes sufficient in order to produce a color LCD. This feature and advantage are not recognized by Shimada, or any of the references cited by the Examiner.

The additional cited references of Shim, Xu, and Kakinuma, individually or in combination with Shimada, fail to teach forming a gate insulating film, forming a protection layer with a flat upper surface on the first substrate, forming a flat color filter layer on the protection layer, and forming an interlayer separation film on the flat color filter layer, as recited in independent claim 26. Since remaining dependent claims 42, 43, 45 and 46 recite additional unique elements and/or limitations, these claims remain patentable because the cited references do not supply the elements missing with respect to the independent claims.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of claims 26 and 42-43, and respectfully requests allowance of claims 26, 42-43 and 45-46.

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorney would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,



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